Description of the project's requirements

International Open Bidding Project / Séminaire Appel d'Offres International

A platform for sharing and annotating tutorial videos, with a peer community based trustworthiness score

1. Introduction

This year you will be working on an international team project. This means that every team has to complete a project, and that every team is international. This is not an "international competition" (France vs. Bulgaria …), this is a competition between international teams.

Every team is composed of a balanced number of students with different skills (programming, graphic design, digital communication, audiovisual production) so that the workload may be fairly shared. And every team is composed of students from at least 3 different countries.

It is up to you, students, to find the best way to work together and to communicate!

2. Work process

On the first day of the project, March 20th, 2023 at 8AM UTC (9 in Paris and Casablanca, 10 in Sofia, 15 in Hanoi), the object of the work you have to do is disclosed to you. This is the purpose of the present document (Section 4).

At the same time, the composition of the teams will be given.

The object is given to you as if it were an open bidding process. Every team has to react as if it were a small company trying to make the best bid and win the competition.

At 10AM UTC, every team should start self-organizing and quickly solve the following questions:

1. Define an internal distribution of responsibilities (it is expected that every team appoints at least one coordinator/spokesperson, one person responsible for web server access, and one person in charge of audiovisual productions; apart from that, your internal structure should be just as much hierarchical as you think it necessary)
2. Find a name for the team
3. Define an internal organisation in subgroups or "task forces" of persons with specific skills
4. Define the work packages, tasks and subtasks, and assign them to the relevant subteams and team members.

The answer to those questions will be collected before the end of the first day.

The team then starts to work in a classical project management process: design a book of recommendations, then implement it.

On Day 4 (i.e. on Thursday, March 23rd), between 9 and 11 Paris time (between 8AM and 10AM UTC), each team is expected to give a short presentation of its specifications to the teaching team, and to say where it stands in the process. At the end of that day, it also has to give a written document: the book of recommendations and technical choices.

The book of recommendations and technical choices has to include a data model that fits the requirements of the system (see Section 4.3): (1) on a conceptual level (Entity-Relationship Diagram); (2) on an organizational model (Relational Database model). It also has to describe the choices with regard to the system's UX/UI.

On Day 8 (i.e. on Monday, March 27th), between 12 and 13 Paris time (between 11AM and 12 noon UTC), each team gives an oral progress report to the teaching team.

At the end of the cycle (on Day 12, i.e. on Friday, March 31st), from 9 to 12 and from 14 to 16 Paris time (from 8AM to 11AM and from 1PM to 3PM UTC), each team will have to present the results of its work in front of an international jury. The teaching team will be available on Day 11 in the afternoon to help and give advice for the presentations.

There are no particular constraints on the language(s) you have to use for internal communication, the platform you use to organize your team work, the digital media you use for communicating, or the digital platform you use for exchanging files and project data. There are plenty of choices available, and it is up to you to find which one best suits your needs. A discord platform is available. You are required to use it to communicate with all teams and with the organizers, and you are free to use it for internal team communication if you so wish : https://discord.gg/SRRTuDqf4Y

3. Assessment

The assessment will be based on what you present on the last day (March 31st) in front of the jury.

The language of the presentation on the last day should be English.

Your team work will be marked from 0 to 20. A mark below 10 means you failed. All other marks allow you to get the ECTS credits (above 10 = pass, above 12 = fair, above 14 = good, above 16 = excellent).

The mark is given based on an assessment of your work on different criteria (how well the project goals were met, quality of the graphic design, quality of the presentation...)

An important evaluation criterion is how well people in the team have worked together. During the presentation, it should be made clear to the jury who has done what in the project. Some explanations should also be given about how the problem of collaborating online across different countries has been solved.

Normally the collective note of the team applies to every student member of the team, but in some cases, when the jury detects that some students have worked seriously and some have not, individual notes may be given.

Every team will have up to 30 minutes to present itself and to present its work. The presentation will then be followed by 10 minutes of questions from the jury.

A classic presentation plan includes:

- a presentation of the team;
- an explanation on how the workload was distributed;
- a description of the choices made in graphic design;
- an explanation of the implementation choices;
- a description of the communication strategy to make the website known (online and offline);
- a demonstration of the prototype (incl. at least one video clip created for the project);
- a conclusion about the learnings from that experience.

On the day of the final presentation, every team should give the following written documents to the jury:

- a graphic charter;
- a written description of the communication strategy;
- sample printed communication matter (e.g. flyers).

4. Project Requirements

4.1. Context and problems

The “web 2.0” (collaborative web) has created opportunities for people across the globe to share their knowledge and experience even when they don’t meet in person. This trend has accelerated during the year 2020, when many people were compelled to stay at home because of the covid-19 pandemics.

Now, many people get access to pedagogical content in the form of video tutorials. They allow their authors to share their skills or knowledge in a fluid and illustrative way, and they are not constrained by geographical boundaries. Very frequently, these videos are stored and shared on all-purpose content providers (like Youtube or Vimeo). These video content providers do have some social network functionalities, but what they lack is the guarantee of reliability, since they also host misinformative content, fake news, hoaxes, propaganda, or biased content. It would be perfect if the videos were marked and annotated by experts who could guarantee the reliability of their content.

This is why we ask you to design a platform that will allow people to share, mark and annotate tutorial videos, with a weight based on their level of expertise in the relevant field of competence.

4.2. Goals

This project aims at building a multilingual web portal allowing registered users:

- to share tutorial videos by providing their URLs;
- to assess the quality of other tutorial videos, in a "peer review" process: to give them marks and reviews;
- to assess the quality of other marks and reviews, in a "peer community" spirit.

On the day of the presentation, the project should include a prototype demonstrating the feasibility of such a web-based portal, as well as an example of use, with a (possibly pre-recorded) video exchange.

A communication strategy should also be planned to allow for the portal to become known by the target audience.

4.3. Site features

The website should offer a public section and a private section.

It must be fully available in (at least) three languages.

You will find here below a list of features that could be expected from the website.

4.3.1. Public section

The public section of the website (accessible from any internet user) should contain:

- a home page, containing a presentation of the platform, and a summary of its functionalities (with links);
- a short video clip (3 min. max) advertising possible uses of the platform, featuring users reporting their experience (in addition to live action shootings, videos may include some motion design and/or video screen recordings);
- visible from everywhere on the site, at the bottom of the scrollable page, a list of site information links, pointing to pages such as "About us", "Questions"...

  Important, also at the bottom of the scrollable page, and compulsory:

  - a link "Legal information" (French: « Mentions légales »), pointing to a page where the compulsory legal information is given,
  - and a link "User agreement and terms of service" (French: « Conditions Générales d'Utilisation »), pointing to a page giving the users information about the terms they agree to when using the site;

    before subscribing to the platform, the users should somehow tick a box whereby they accept the terms of service. In the terms of service, they should be reminded that the discussions and contents they share must comply to their country's regulations, and also to a certain number of good practice rules that it is up to you to specify (traditionally, rules of this type include not calling for hate or murder, not expressing racist or sexist views, etc.);

    and according to the General Data Protection Regulation, a link "Privacy policy" (French: « Politique de confidentialité »), pointing to a page where the compulsory legal information about data is given;

    those texts should conform the national and international regulations concerning databases;
- visible from everywhere on the site, at a fixed position on the viewport (classically in the top right corner), an invitation to sign up (subscribe) or to sign in (connect);
- clicking on "sign up"/"subscribe" should get the user to an account creation screen;
- clicking on "sign in"/"connect" should get the user to an authentication screen where users who already have an account may give their credentials and get access to the private section.

The video clip(s) may be hosted on a 3rd-party video hosting platform (the use of independent, decentralized solutions like PeerTube is encouraged, but the use of well-known proprietary hosting platforms like Vimeo, Dailymotion, or YouTube is not forbidden). It should be subtitled in all of the languages of your site. Depending on the current language choice, the video

should automatically play with the corresponding subtitles (the language of the subtitles can be sent among the parameters of the GET request to the public video hosting platform that hosts the embedded video).

It is very important to obtain a written consent from the people featured in the sample video for their image to be used on a publicly accessible web site (it is, of course, not necessary to disclose their real identity, as they ought to represent personas more than actual people).

The pages of the public section of the website should be available in at least three languages: French, English, and at least one non-European language. The teams should take advantage of their internal linguistic skills.

The texts published on the public section of the website, under the editorial responsibility of the site managers, have to be carefully designed (with regard to their recipient target, communicative goals, and wording) and carefully written.

4.3.2. Private section (accessible with credentials)

It should not be forgotten that this network is private and should comply with the "Privacy by design" European Regulation 2016/679 on data protection. This is an important platform requirement.

The private section of the website should allow registered users to see embedded videos (not hosted on the website itself, but referenced by their URL) and to mark and annotate (review) them. Videos should be tutorial videos, designed to display pedagogical content: e.g. lectures, discussions, literature reviews, howtos, technical advice, practical demonstrations.

The private section should contain:

1. A way, for registered users, to mention (a) their field(s) of competence or experience, and (b) a self-assessment of their level of expertise in those fields.

   The fields of competence should fall into predefined categories or tagwords (that the website team would have collected, and translated in the different languages in advance).
2. A "suggestion" box allowing registered users to suggest adding new categories or subcategories.
3. An interface allowing the users to navigate among the categories and subcategories.
4. On the leaf category pages, flex lists of tutorial videos, ranked by their average community mark, accessible by clicking on them.
5. On the individual video pages, the embedded videos, along with an average (community) mark on a scale from -1 to +5, and a list of marks and reviews from individual users.
6. Interaction functions allowing any registered user to add a new mark and a new review on the tutorial video.
7. Interaction functions allowing any registered user to mark another user's review.
8. A simple and visible way to access the public sections of the site without disconnecting;
9. and, visible at a fixed position on the viewport (same as in the public section, see 4.3.1), an invitation to sign out (disconnect).

Once logged in the private section of the platform, the users may access all of the functions described above.

The added-value of the site should not reside in the fact that users may comment a video (they can do this on Youtube or many other platforms). It should reside in the underlying conceptual model, where the relevance score (= the average community mark) of any user's video or review is weighted by the authors trustworthiness score, which is itself computed by the average mark it gets from other trustworthy users in the same field of expertise.

An example model of how this community based trustworthiness works is given below. Every team may choose to adapt or modify it.

A trustworthiness score applies to a given user on a given category:

- by default, the initial score of a user on a category is self-assessed;
- in categories where no self-assessment is given, the initial score is 0.

Users may mark videos or reviews from other users on a scale from -1 to 5:

- 0: no information value.
- 5: very high information value.

- -1: misinformation.

The average community mark of a given video or review is computed from the aggregated weighted sum of the individual marks, where each mark's weight depends on its author's trustworthiness score in the relevant category.

When a user A marks a video or review from a user B:

- the new average mark of B's video or review (taking into account the newly inserted mark) is computed based on A's mark, weighted by A's trustworthiness score in the relevant category;
- B's average trustworthiness score is recomputed, taking into account the new mark;
- When recomputing B's score, the mark on videos weighs more than the mark on reviews (for example, ×5 times more).

This model should hopefully converge towards a peer community based trutworthiness score. For example, users who initially declare themselves to be experts on health-related topics will have their trustworthiness score decreased if they consistently get poor ratings from other experts in the same field: their advice will weigh lower and lower when rating other users' content, and their videos or reviews will end up ranking lower in the lists.

A "manual" fix by the website managers should always remain possible.

4.4. Implementation

A LAMP server will be available for you to upload your site. At the end of the project the site will be visible under the hierarchy of the host http://international.iut-bobigny.univ-paris13.fr (or http://81.194.40.29). In every team, the person responsible for server access is individually in charge of the team's credentials on the server, and this should be an individual responsibility.

The development language shall be PHP and the relational database system MariaDB.

The User eXperience should be considered and assessed with great care. The website users have to be able to easily find what they came looking for, and furthermore, should enjoy their experience on the site, and feel an appeal to stay longer. The technical choices regarding the "front office" (client-side) part of the system have to be made by the team (there are no pre-requisites); but the quality of the user interface is part of the project's assessment.

4.5. Audiovisual design

Advice for the creation of pedagogical video tutorials:

Each team should create:

- the short video clip described on the 4.3.1 section;
- from 2 to 4 short tutorial videos.

The duration of a video should be from 1 to 2 minutes. Therefore each film should describe a very precise notion (skill, knowledge).

The following constraints should be kept in mind:

- Each video must respect the general graphic charter of the agency;
- All the videos created by a team should have a common internal construction and consistency;
- You are free to use real takes or motion design, or both of them;
- It is recommended to choose one or several topics that the members of the team know well.
- Some other pedagogical videos could be simulated by visual thumbnails.

  (featuring for example a title and a picture).

4.6. Communication and graphic design

Should your team want to launch your platform in the real world, you would need to make it well-known and easily recognizable. You are asked to plan a communication strategy to make your new service known to the targeted audience, and also to design a recognizable visual identity.

4.6.1. Communication strategy

Digital network communication:

- The video mentioned in 4.3.1 should be hosted either on our server, or on a public video hosting network (like PeerTube), or platform (like Vimeo, YouTube or DailyMotion).

  A digital communication campaign on other networks (Facebook, Twitter, Instagram...) is requested and should be exposed and explained.

The texts published on social networks, under the editorial responsibility of the site managers, have to be carefully designed (with regard to their recipient target, communicative goals, and wording) and carefully written.

4.6.2. Creative strategy

The graphic designers will be in charge of all visual files for the website; they will also see to printed matter (posters, flyers).

Then they will have to set up the graphic specifications, finalize the graphic side of the project and defend it.

It is required that the site designers take particular care in imagining intuitive interfaces, based on cognitive ergonomy principles.

Their work will be summed up in a document called **graphic charter**, that will be handed to the jury. The graphic charter describes:

- the visual aspect of the site;
- the logotype and its possible variants;
- the brand identity that has been defined to communicate on different media;
  (including: interface and banners on auxiliary networks: Vimeo or YouTube channel, social networks if applicable...);
- graphic elements included in the video tutorial (e.g. motion design, panels, decoration);
- posters and flyers designed to promote the network when launched.

Partners : IUT de Bobigny, Université Sorbonne Paris-Nord (France); IFIAG, Casablanca (Morocco); Technical University of Sofia (Bulgaria); Hanoi University of Science, VNU (Vietnam), Telecommunications Institute, Université St-Joseph, Beirut (Lebanon).

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